

DSI10402\_ST25.txt  
SEQUENCE LISTING

<110> Cosenza, Lawrence W.  
 <120> SACROMASTIGOPHORIC THERAPEUTIC AGENT DELIVERY SYSTEM  
 <130> DSI-10402/22  
 <140> US 10/735,203  
 <141> 2003-12-12  
 <150> US 60/433,269  
 <151> 2002-12-13  
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<220>  
<223> Primer for echovirus 1 VP2 protein

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<211> 67  
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<220>  
<223> Primer for echovirus 1 VP2 protein

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<220>  
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<220>  
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<400> 10  
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<223> vectorial cloning primer containing speI restriction site

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35
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<210> 17
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<210> 18
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<212> DNA
<213> Artificial

<220>
<223> Vectorial cloning primer containing bgl ii restriction site

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<212> DNA
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28

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<210>	20
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## DSI10402\_ST25.txt

<212> DNA  
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<223> Recombinant echovirus 1 VP1 shell protein

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tcgcaggtag tacctgggtga taccatgcag accagacatg tgatcaacaa tcacgtgagg 180  
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cgcatgtcaa ttccatttat taacataggc aatgcgtata gtaatttcta cgatgggtgg 600  
tctcacttct cccaggctgg cgtgtatggc ttcactactc tgaacaacat gggtcatttg 660  
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ttcaaaccga aacatgtacg cgcttgggtg cctagaccac gcgccttggc tccatacatc 780  
aatagcacga atgtcaactt tgaacccaag ccagtgaatg aagtacgtac caacataata 840  
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gaagaccccg aggatctcga gcaccaccat caccatcacc atcac 945

<210> 21  
<211> 843  
<212> DNA  
<213> Echovirus 1

<220>  
<221> gene  
<222> (1)..(843)  
<223> Native VP1 shell protein

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caggcagtag ctggtgatac catgcagact agacatgtga tcaacaatca cgtgagggtca 180  
gaatctacaa ttgagaactt ccttgccaga tcagcgtgtg ttttctactc agagtacaag 240  
acagggacca aagaggatc caatagcttc aacaattggg tgattacaac caggcgagtg 300  
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gtggtcatta caagctcgca agatcagtct acatcacaaa accagaatgc accagtgcta	420
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cacttctccc aggctggcgt gtatggcttc actactctga acaacatggg tcaattgttc	660
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aaaccgaaac atgtacgcgc ttgggtgcct agaccaccgc gcttgtgtcc atacatcaat	780
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acg	843

<210> 22  
 <211> 792  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Recombinant echovirus 1 VP2 shell protein

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gagtatctga gtgataacga ggcaactgct gaggaccaac caacgcagcc ggacgtggcc	180
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acagcagaag accatggcgt gcaggccgcg gtatggaatg ctggatggg cgttggagtt	540
gggaacttga cgatcttccc gcaccaatgg atcaaccttc gcaccaacaa cagcgccaca	600
attgttatgc catacgtaaa tagtgtacca atggacaata tgtatagaca tcacaacttt	660
acactaatga taataccctt tgtgcctctg gatttcagcg cgggtgcac cacatacgtg	720
cccataacgg tgacagtggc ccccatgtgt gccgagtaca atggactacg actagctgga	780
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<210> 23  
 <211> 783  
 <212> DNA  
 <213> Echovirus 1

<220>

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<221> gene  
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 <223> Native VP2 shell protein

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 tatctgagtg ataacgaggc aactgctgag gaccaaccaa cgcagccgga cgtggccact 180  
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 tgtatccttg tagtgtgtgt cctgaggcg gagatgggaa gtgcccaaac ctacggggtg 420  
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 gcagaagacc atggcggtga ggcgcgggta tggaaatgct gtaggggcgt tggagttggg 540  
 aacttgacga tcttcccgca ccaatggatc aaccttcgca ccaacaacag cgccacaatt 600  
 gttatgccat acgtaaatag tgtaccaatg gacaatatgt atagacatca caactttaca 660  
 ctaatgataa taccctttgt gcctctggat ttcagcgcgg gtgcatccac atacgtgcc 720  
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 caa 783

<210> 24  
 <211> 937  
 <212> DNA  
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<220>  
 <223> Recombinant echovirus 1 VP3 shell protein

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 agtacctggt gataccatgc agaccagaca tgtgatcaac aatcacgtga ggtcagaatc 180  
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 aattccattt attaacatag gcaatgcgta tagtaatttc tacgatgggt ggtctcactt 600  
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gaatgtcaac ttgaaacca agccagtgc tgaagtacgt accaacataa taacaacgat 840
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<210> 25
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<213> Echovirus 1

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<220>
<221> gene
<222> (1)..(843)
<223> Native VP3 shell protein

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gctcaactac gtagaaaact ggaaatgttt acttacctac ggtttgacat ggaaatcacc 360
gtggtcatta caagctcgca agatcagtct acatcacaaa accagaatgc accagtgcta 420
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aaaccgaaac atgtacgcgc ttgggtgcct agaccaccgc gcttgtgtcc atacatcaat 780
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<212> DNA
<213> Artificial

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<220>
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DSI10402\_ST25.txt  
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<212> DNA  
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<222> (1)..(207)  
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<210> 28  
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<212> DNA  
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Maeda,N.  
<302> No trypanosome lytic activity in the sera of mice producing human  
<303> Mol. Biochem. Parasitol.  
<304> 119  
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<306> 291-294  
<307> 2002-02-01  
<313> (1)..(1047)

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gcaaattggct atgtggagca ctgttttcgc taccagtgtg agaactacta cagactgcgc 180  
acagaaggag atggagtata caccttaaata gataagaagc agtgagataa taaggctgtt 240  
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gtgcagcgga tcctgggtgg acacctggat gccaaaggca gctttccctg gcaggctaag 360  
atggtttccc accataatct caccacaggg gccacgctga tcaatgaaca atggctgctg 420  
accacggcta aaaatctctt cctgaacat tcagaaaatg caacagcgaa agacattgcc 480  
cctactttaa cactctatgt ggggaaaaag cagctttag agattgagaa ggtgttctta 540

## DSI10402\_ST25.txt

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ggttacgtgt ctggctgggg acaaagtgac aactttaaac ttactgacca tctgaagtat      720
gtcatgctgc ctgtggctga ccaatacgat tgcataacgc attatgaagg cagcacatgc      780
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<210> 29
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<212> PRT
<213> Homo sapiens

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<300>
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      Maeda,N.
<302> No trypanosome lytic activity in the sera of mice producing human
<303> Mol. Biochem. Parasitol.
<304> 119
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<307> 2002-02-01
<313> (1)..(348)
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```

Arg Phe Pro Lys Pro Pro Glu Ile Ala Asn Gly Tyr Val Glu His Leu
          35          40          45

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```

Phe Arg Tyr Gln Cys Lys Asn Tyr Tyr Arg Leu Arg Thr Glu Gly Asp
          50          55          60

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Gly Val Tyr Thr Leu Asn Asp Lys Lys Gln Trp Ile Asn Lys Ala Val
65          70          75          80

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Gly Asp Lys Leu Pro Glu Cys Glu Ala Val Cys Gly Lys Pro Lys Asn
          85          90          95

```

```

Pro Ala Asn Pro Val Gln Arg Ile Leu Gly Gly His Leu Asp Ala Lys
          100          105          110

```

## DSI10402\_ST25.txt

Gly Ser Phe Pro Trp Gln Ala Lys Met Val Ser His His Asn Leu Thr  
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 Thr Gly Ala Thr Leu Ile Asn Glu Gln Trp Leu Leu Thr Thr Ala Lys  
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 Asn Leu Phe Leu Asn His Ser Glu Asn Ala Thr Ala Lys Asp Ile Ala  
 145 150 155 160  
 Pro Thr Leu Thr Leu Tyr Val Gly Lys Lys Gln Leu Val Glu Ile Glu  
 165 170 175  
 Lys Val Val Leu His Pro Asn Tyr His Gln Val Asp Ile Gly Leu Ile  
 180 185 190  
 Lys Leu Lys Gln Lys Val Leu Val Asn Glu Arg Val Met Pro Ile Cys  
 195 200 205  
 Leu Pro Ser Lys Asn Tyr Ala Glu Val Gly Arg Val Gly Tyr Val Ser  
 210 215 220  
 Gly Trp Gly Gln Ser Asp Asn Phe Lys Leu Thr Asp His Leu Lys Tyr  
 225 230 235 240  
 Val Met Leu Pro Val Ala Asp Gln Tyr Asp Cys Ile Thr His Tyr Glu  
 245 250 255  
 Gly Ser Thr Cys Pro Lys Trp Lys Ala Pro Lys Ser Pro Val Gly Val  
 260 265 270  
 Gln Pro Ile Leu Asn Glu His Thr Phe Cys Val Gly Met Ser Lys Tyr  
 275 280 285  
 Gln Glu Asp Thr Cys Tyr Gly Asp Ala Gly Ser Ala Phe Ala Val His  
 290 295 300  
 Asp Leu Glu Glu Asp Thr Trp Tyr Ala Ala Gly Ile Leu Ser Phe Asp  
 305 310 315 320  
 Lys Ser Cys Ala Val Ala Glu Tyr Gly Val Tyr Val Lys Val Thr Ser  
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&lt;210&gt; 30

&lt;211&gt; 4

## DSI10402\_ST25.txt

<212> PRT  
<213> Echovirus 1

<220>  
<221> misc\_feature  
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<223> Echovirus 1 VP4 protein terminal sequence mutant

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<210> 31  
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<220>  
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<223> Echovirus 1 VP4 protein terminal sequence mutant

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